

REMARKS

Reconsideration and allowance in view of the foregoing amendments and the following remarks is respectfully requested.

Claim amendments/Status

In this response claims 1, 4-10 have been amended in a manner which clarifies syntax and obviates the rejections under 35 USC § 112, second paragraph. In addition, claim 1 has been amended in a manner which clarifies the subject matter for which patent protection is sought. Support for the amendments is found on page 4, lines 12-30 and Fig. 2b. As will be appreciated from Fig. 2b, with the embodiment of the invention, the ON/OFF status of the switch can be controlled via the voltage applied to the switch, so as to decay smoothly from one steady state to another and then reverse from a low level to a high one.

Claims 1-10 remain pending in the application.

Rejections under 35 USC § 102

- 1) The rejection of claims 1-3 and 5-10 under 35 USC 102(b) as being anticipated by US Patent No. 5,847,367 to Hancock et al. (hereinafter Hancock), is respectfully traversed.

First it appears that the Examiner does not fully appreciate the term "switching time." This term does not appear at all in the Hancock reference. Therefore, if there is no disclosure of the term then the claimed switching time cannot be anticipated or even suggested. The term "setpoint" is not found in this reference. Therefore, anticipation or suggestion of "setpoint voltage" cannot be established. At best, it appears that the examiner is assuming that switching time refers to the time at which the switch switches.

On page 5 lines 5 and 6, it is advanced that Hancock discloses "to control the voltage across the terminals of the switch." In Hancock, this voltage is between MT1 and MT2 (see figure 1) and nowhere in this document is this voltage controlled.

Further, the rejection asserts on page 5 line 13 that "the switch control 10 controlling the electronic switch WOULD have to control the switching time of the electronic switch." However, nowhere in this document this control is disclosed or suggested. For example, at column 6, lines 29 to 60, of Hancock it is disclosed that the latch 17 commands the control circuit 10, but there is only a description of the ON and OFF states. There is no disclosure relating to the time for a

transition between the two states ON to OFF or OFF to ON. In this document, the transitions must be assumed to be instantaneous. This document deals only with the “date” of each transition not with the “duration” of the transition. The claimed subject matter relates to the duration.

- 2) The rejection of claims 1, 4, 5 and 10 under 35 USC 102(a) and (e) as being anticipated by US Publication No. 2002/0130123 to Prager, is respectfully traversed.

In Prager, the voltage control across the terminals of the switch is never disclosed. Thus, the switching time or switching duration of the switch action is not disclosed. The rejection indicates on page 9 second paragraph that if the device doesn't control the switching time, the device would not function. This opinion appears strange. For example, when you press a switch to put a light on, you don't control the switch time. You only control the time when the light is turned on. You don't control the time necessary for the switch to pass from the state OFF to the state ON. In an automatic switch command device as disclosed in Hancock or Prager, Applicants do not see why it could be different. The device has not to control the switching time. This kind of device has only to control the instant of switching not the switching time. The instant of switching is important for these devices to control the duty cycle. However, the switching time has no importance for the two devices disclosed in Hancock or Prager.

Rejections under 35 USC § 103

- 1) The rejection of claims 2, 3 and 6-9 under 35 USC 103(a) as being unpatentable over Prager is respectfully traversed.

As noted above, the disclosure which would be necessary to lead the hypothetical person of ordinary skill in the direction of the claimed subject matter is not to found. Indeed, Prager has but one reference to switching time and that is “analyzing the ON/OFF-switching time pattern of the first power switch” and this is clearly directed to a switching pattern not the “switching time.” Attention is called to United States Patent No. 7, 555, 177 to Bahuguna et al. wherein the term switching time is frequently used and used in its correct context.

- 2) The rejection of claims 1-10 under 35 USC 103(a) as being unpatentable over Hancock in view of Frus et al. US Patent No. 5,754,011 to Frus et al (Frus), is respectfully traversed.

In this rejection, Frus is cited to show an arrangement which holds the flow of current until a switch has had a chance to transition from its non-conductive state to its conductive state. However, this is what is meant by "switching time." Further, this clearly suggests that the switching time is not controlled but allowed to complete its normal operation. Then, when the switch is closed, current is allowed to flow to the switch.

However, the position that Frus suggest delaying switching time is contrary to the intention of Frus. With Frus the faster the switch transitions, the sooner current can be supplied to the now fully closed switch. Why slow the switch transition? Why make the operation of the overall device even slower? Further, the term "switching time" is not found at all in the Frus reference.

- 3) The rejection of claims 1-10 under 35 USC 103(a) as being unpatentable over Prager (US Publication No. 2002/0130123) in view of Frus et al. (US Patent No. 5,754,011), is respectfully traversed.

This rejection is traversed for the same reason as that dealt with above. The switching time is not modified, the circuit awaits its transition and then supplies current. Any consideration of slowing the process would not be given. Indeed, the very reverse would be desired in order to avoid slowing the operation of the device.

Conclusion

All objections and rejections having been addressed, it is respectfully submitted that the present application should be in condition for allowance and a Notice to that effect is earnestly solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including

extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,
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Date: July 6, 2009
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